

REVIEW

A.S. GEORGE (Ed.): Flora of Australia Volume 4. Phytolaccaceae to Chenopodiaceae. Australian Government Publishing Service, Canberra, 1984. X + 354 pp. Paper-back. Price Aus.\$ 29.95. ISBN 0-644-03442-4.

A.S. GEORGE (Ed.): Flora of Australia Volume 25. Melianthaceae to Simaroubaceae. Australian Government Publishing Service, Canberra, 1985. XII + 215 pp. Paper-back. Price Aus.\$ 24.95. ISBN 0-644-03724-5.

The Flora of Australia started in 1981 and since then 8 volumes came out, including some 70 families. Before all we have to congratulate the editors with this achievement and we express our hope that it will be possible to go on like this.

Eight volumes provide the possibility for a more general evaluation. First of all, just turning over the leaves of these volumes, one is struck by the balanced design, the clear typography, the amount of illustrations. However, on further consideration one feels some disappointment. Only once in a hundred years a Flora of Australia appears to be written, and accordingly it should be as good as possible. It is a pity then if you find too often mistakes, often unnecessary ones, and inaccuracies.

The present reviewer has taken test samples in several families, but of course he paid special attention to those families familiar to him. Accordingly, if the examples are often derived from just a few families, this does not mean that these are worse than others.

As far as I can see, a good deal of attention has been paid to correct nomenclature. One of the few exceptions I found (25: 11) concerns *Allophylus cobbe*: the authority should not be (L.) Blume, Rumphia 3: 131 (1847), but (L.) Raeusch., Nomencl. ed. 3: 108 (1797).

The derivation of the names of accepted genera is given, but not always in full agreement with the intention of the original author: *Toechima* (25: 77) in which 'ima' is translated by 'lowermost', whereas Radlkofer in the original publication gives 'Mantel' (= coat). And of course Roxburgh in the Plants of the Coast of Coromandel did not derive the name *Garuga* from an Indonesian vernacular (25: 166) but from an Indian one.

Types are given for all names, but here also I found some inaccuracies (25: 72, *Sarcopteryx*, 'type not designated', but in the authors's own precursory paper which is cited a lectotype has been selected); (25: 46, *Dictyoneura microcarpa*, 'collector unknown', though in the original description Branderhorst 202 is mentioned). A mistake is the citation of the type of *Cardiospermum hirsutum* Willd. from New Guinea (25: 8); this should be Guinea, West Africa. With some authors too often types have not been seen, even if these are in Australian herbaria (25: 25, *Spanoghea con-nata*, type in MEL). In many cases this may seem unessential, though even if a name seems unambiguous it may be wise to check the type. Types should always be studied in taxonomically difficult cases. See *Akania* (25: 2), endemic, two specific names given, none of the types seen (they are probably in MEL), with a final remark 'The genus should be revised'; why isn't it done here?

The descriptions are not always correct (22: 218, *Dichapetalaceae*, 'monoecious or dioecious', correctly, but 'Flowers bisexual. '; 25: 4, *Sapindaceae*, 'exstipulate' which is wrong, some genera have stipules, i.a. *Cardiospermum* (25: 8) where they are also not mentioned). Descriptions of species under the same genus are often not uniform and accordingly hard to compare. Key characters, hence important ones, are not rarely omitted in the descriptions (25: 141, the rather exclusive key character 'Wing margins denticulate' is not included in the descriptions of *Dodonaea rupicola* and *vestita*). The descriptions of genus and species are sometimes not in agreement: see the tepals in *Dysphania* (4: 153).

The distribution outside of Australia is often given but sometimes not (25: 12, *Tristiropsis canarioides* at least also in New Guinea) or incompletely (25: 11, *Allophylus*, also in America).

Taken as a whole the keys seem simple and clear. In some cases this may be deceiving, however. A comparison of the description of *Drosera stolonifera* (8: 41) with the key to the species of *Drosera* (8: 13), taken at random as a test sample, learned that whereas couplet 43 gives 'Leaf lamina longer than petiole or petiole absent' and couplet 44 'Leaves all or mostly cauline' the description reads 'Cauline leaves lamina 2–10 mm long, petiole 5–30 mm long' and under subsp. *compacta* 'Cauline leaves few or absent.' (it keys out only once).

On checking the keys one gets sometimes the impression that some genera or species are hardly separable, and this impression is still strengthened by notes under these taxa. Some genera of the *Chenopodiaceae* (4) seem mainly different in the appendages to the fruit and are compared, or intergrade, or hybridize with each other. In the *Sapindaceae* (25) the differences between species in some genera (*Atalaya*, *Heterodendrum*) seem very slight only.

As to the illustrations, small, simple, but very clear distribution maps are given of all species and infraspecific taxa. The drawings are different in style and quality, dependent on the different draughtsmen who contributed to this series. Fine and clear drawings are to be found in the *Chenopodiaceae*; in some other families the drawings are rather coarse and lack clearness by too heavy shading. Especially instructive are the series of drawings of fruits of some genera (4: 92–93, *Atriplex*; 25: 127–131, *Dodonaea*; 4: 186–187, *Maireana*; 4: 244–246, *Sclerolaena*).

Summarizing, this is a very important series, well-produced and very reasonably priced. It is to be hoped that the one-volume-a-year scheme can be maintained and that in the future relatively unimportant but irritating incorrectnesses as mentioned above can be avoided.

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